

REMARKS/ARGUMENTS

In the Office Action, claim 15 was rejected under 35 U.S.C. §112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which the Applicants regard as the invention. Additionally, claims 1, 2, 12 and 13 were rejected under 35 U.S.C. §102(e) as being anticipated by Caulkins (U.S. Patent No. 6,473,355). Further, claims 3, 6, 9-11, 14-16 and 19 were rejected under 35 U.S.C. §103(a) as being unpatentable over Caulkins in view of Lee et al. (U.S. Patent No. 4,730,121). Additionally, claims, 7-8 and 17-18 were rejected under 35 U.S.C. §103(a) as being unpatentable over Caulkins in view of Zandveld et al. (U.S. Patent No. 4,841,474).

The Applicants appreciate the indication in the Office action that claims 4 and 5 would be allowable if rewritten in independent form including all of the limitations of the base claim and any intervening claims.

In response to the Office action, the Applicants have made certain amendments to the claims. In particular, the Applicants have amended claim 15 to depend from claim 14 rather than claim 12, and added new claims 20 and 21. The Applicants submit that these amendments do not add new matter.

Further, with respect to the rejections of claims 1-3 and 6-19 in the Office action, the Applicants respectfully traverse these rejections for at least the reasons set forth below, and submit that all of pending claims 1-21 are in condition for allowance.

Allowability of Claims 1-3 and 6-19

Despite the comments in paragraph 5 of the Office Action, the Applicants respectfully traverse the rejections of claims 1, 2, 12 and 13 under 35 U.S.C. § 102(e) in view of Caulkins. In particular, the Applicants submit that certain of the features recited in independent claims 1 and 12 are missing from Caulkins.

In particular, the Applicants are unable to find disclosure within Caulkins of a “voltage supervisory circuit” that operates an “electronically controlled switch in response to a predetermined level in backup voltage below a normal backup voltage to disconnect [a] backup supply line from [a] volatile memory”. Indeed, the Applicants are unable to find any circuit within Caulkins that causes any switch to disconnect a backup

supply line from a volatile memory. Nor are the Applicants able to find any switch that disconnects a backup supply line from such a volatile memory.

With respect to the passage of Caulkins at col. 10, lines 4-41 and FIG. 3A referenced by the Examiner, while the Applicants recognize that these portions of Caulkins do show a system in which a volatile memory device is provided with DC power that may arrive from either a commercial power line or a battery, the Applicants otherwise do not understand the relevance of these portions of Caulkins with respect to the Applicants' claimed invention. As best as the Applicants can determine, none of these passages discloses a backup supply line that is disconnected from the volatile memory by way of an electronic switch, a voltage supervisory circuit, or otherwise. Although Caulkins discusses briefly the possibility that a backup voltage provided by a rechargeable battery might fall below a predetermined level, the Applicants are unable to find any indication within Caulkins that the battery is ever disconnected from the volatile memory.

The Examiner states that "Caulkins does not specifically disclose using a controllable switch to perform said interruption of backup power", but then states that "a switching means is inherently used to selectively disconnect the supply of backup power from the memory". The Applicants respectfully disagree. The Applicants respectfully direct the Examiner's attention to Section 2112 of the M.P.E.P., which states that the "Examiner Must Provide Rationale or Evidence Tending to Show Inherency" and, in support of this statement, cites *Ex parte Levy*, 17 USPQ2d 1461, 1464 (Bd. Pat. App. & Inter. 1990), which states "In relying upon the theory of inherency, the examiner must provide a basis in fact and/or technical reasoning to reasonably support the determination that the allegedly inherent characteristic necessarily flows from the teachings of the applied prior art." The Applicants respectfully submit that the Examiner has not met this burden described in the M.P.E.P. The Applicants are unable to find any disclosure within Caulkins that any switch is used to interrupt or disconnect a backup power supply line; rather, all that Caulkins appears to disclose is that there is the possibility of providing backup power. Further, the Examiner has not provided any basis for the Examiner's position that use of a switch to disconnect a backup power line would be inherent.

It is not surprising that Caulkins fails to disclose these features recited pending claims 1 and 12, since Caulkins addresses an entirely different problem than the Applicants' claimed invention. Caulkins specifically addresses the problem of how to

utilize volatile memory in a manner that will prevent a loss of the recorded information even when all power being supplied to the volatile memory is disrupted. To solve this problem, Caulkins proposes a system that normally records information in the volatile memory but also records the information in a backup, non-volatile memory when commercial power is disrupted such that, in the event that a backup battery power supply is also disrupted, there will still be a copy of the recorded information in the non-volatile memory. That is, Caulkins sets forth a system of re-recording information from a volatile memory to a non-volatile memory when it becomes prudent in view of a failure of a primary power source, even though a backup power source is still providing power.

In contrast, the Applicants' claimed invention addresses how to prevent improper operation of a system that utilizes a volatile memory in situations where all power sources to a volatile memory have been lost, where no backup copy of the information stored in the volatile memory can be made to a non-volatile memory or otherwise, and consequently where there is presumed to be a loss or corruption of the information on the volatile memory. In particular, the Applicants' invention addresses the problem of how to prevent premature battery depletion by a system utilizing volatile memory that is capable of operating in both a normal mode and a "powerdown" mode, where the premature depletion can result when a complete power failure leads to corruption of the data of the volatile memory governing the volatile memory's mode of operation. The Applicants' invention addresses this problem by disconnecting the backup power line from the volatile memory whenever power has been disrupted from both the main power line and the backup battery power source, and only reestablishing the connection between the volatile memory and the backup power line when the power from the main power line has returned. This prevents inappropriate depletion of a battery power source that might occur if the connection between the backup power line and the volatile memory was reestablished at a time when only the battery power source was capable of providing power and the volatile memory was inappropriately operating in normal mode due to the corruption of its data that resulted from the power disruption. Thus, the Applicants' invention as recited in claims 1 and 12 relates to an entirely different problem than Caulkins and, for that reason, it is not unexpected that Caulkins fails to disclose various features recited in the Applicants' claims.

For at least these reasons, therefore, the Applicants respectfully submit that independent claims 1 and 12, as well as claims 2-11 and 13-19 depending therefrom, are allowable over Caulkins.

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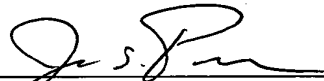
Conclusion

Given the Applicant's Remarks and Amendments, the Applicant respectfully requests reconsideration and allowance of the present Application.

The Applicant wishes to invite the Examiner to telephone the Applicant's attorney at the number listed below if discussion with the Applicant's attorney would be of assistance to the Examiner or further the prosecution of the present Application.

Respectfully submitted,
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By: _____


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